

REMARKS

Claims 1 - 7 remain active in this application. Claims 1 and 2 have been amended to improve clarity and form. Support for the amendments of the claims is found throughout the application, particularly in Figure 1 and the description thereof on pages 6 - 7 and in claim 5. No new matter has been introduced into the application.

Claims 1 - 2 and 4 - 6 have been rejected under 35 U.S.C. §102 as being anticipated by Suzuki or Redi. Claim 3 has been rejected under 35 U.S.C. §103 as being unpatentable over Redi in view of Ito. Claim 7 has been rejected under 35 U.S.C. §103 as being unpatentable over Redi in view of Aoki et al. All of these grounds of rejection are respectfully traversed.

While all of the prior art applied by the Examiner recognizes that a communication channel to and from a mobile terminal can be degraded by motion of the mobile terminal and that the nature and degree of degradation of the communication channel varies with speed of the mobile terminal, all the applied prior art is directed to much different problems than that to which the present invention is directed and thus fails to answer the claimed subject matter. More specifically, communication systems having mobile terminals and base stations monitor signals from base stations or cells other than the base station or cell through which a communication is being conducted in order to switch to a cell offering optimal communication quality as the mobile terminal moves. However, this process is complicated by the degradation of the communication channel due to clock errors or Doppler effects as the mobile station changes location. Techniques are known (and exemplary techniques cited in the application) for correcting this degradation and thus optimizing performance of the mobile terminal but require *a priori*

knowledge of the nature of the degradation and the dependence thereof on speed of the mobile terminal as well as at least an approximation of the actual speed of the mobile terminal at a given time. The invention, as claimed, thus captures an approximation of the mobile terminal speed and distributes that information to data processing software components which are designed for optimizing performance of the mobile terminal.

Suzuki recognizes that as speed increases, the rate of sampling of signals from neighboring cells must be increased in order to compensate for the rate at which a signal can fade in the communication channel and to provide rapid response and channel/cell switching when velocity of the mobile terminal is high and signal strength can change relatively more quickly. However, Suzuki also recognizes that the signal strength can vary due to factors other than mobile terminal motion, such as due to multi-path fading which may simulate the effects of relatively high speed and thus may cause premature (or, possibly, delayed) switching between cells. To avoid this effect, Suzuki uses global positioning system (GPS) data to determine speed and thus improve the accuracy of the timing of switching between cells through removal of sources of variation of signal strength other than mobile terminal motion which are also sources of error of the speed estimation. Suzuki is thus seen to function at an entirely different level from the invention and does not teach (or suggest) inclusion of "plurality of data processing software components designed to optimize operational performance of said mobile terminal" or distributing the captured speed information to them as recited in claims 1 and 5, much less being distributed in any particular way as recited in claim 2. While the Examiner asserts that S203 - S206 of Suzuki answers these recitations, it is clear from the passages of

Suzuki cited by the Examiner that the velocity information is merely the basis upon which these operations are *exclusively selected* and that no operations are performed therein which include *processing of velocity data* and, in any event, that processing does not "optimize operational performance" of the mobile terminal but only controls switching between cells. Therefore Suzuki does not, in fact, anticipate any claim in the application and the Examiner has not made and cannot make a *prima facie* demonstration that it does. Therefore, the asserted anticipation of claims 1, 2 and 4 - 6 by Suzuki is clearly in error and untenable.

Similarly, Redi, while being principally directed to an energy conserving network protocol, also recognizes that processing incident to switching between neighboring cells (referred to in Redi as "beaconing") must be carried out at increased rates when mobile terminal velocity is increased. There is no teaching or suggestion of a "plurality of data processing software components designed to optimize operational performance of said mobile terminal" or distributing the captured speed information to them as recited in claims 1 and 5, much less being distributed in any particular way as recited in claim 2. The Examiner asserts that elements 202, 216 and 307 of Figure 4 answer these recitations but it is abundantly evident from the description thereof in the specification and the remainder of Figure 4 that they do not; the motion rate is used to obtain a motion state which is used to select between operations 306 and 310 (each to the exclusion of the other) which differ only in the accommodation of different velocity ranges in the setting of network parameters but do not operate on the velocity data. Therefore, it is also abundantly clear that Redi does not anticipate any claim in the application and that the Examiner has not

made and cannot make a *prima facie* demonstration of anticipation in regard to any claim. Therefore, the asserted anticipation of claims 1, 2 and 4 - 6 by Redi is clearly in error and untenable.

Ito also recognizes that the bit error rate of a communication channel increases the velocity of a mobile terminal increases and counteracts that effect by reducing the bit transmission rate with velocity. As with Suzuki and Redi, velocity data is only used to switch the communication speed and the velocity data is not distributed to a "plurality of data processing software components designed to optimize operational performance of said mobile terminal" or processed by any such data processing software components. Therefore, Ito does not mitigate the deficiencies of Redi, discussed above and cannot answer the recitations of any claim. Further, even if the teachings of Ito are as the Examiner asserts, it is unclear how determining speed from a gearshift position has anything to do with the subject matter of dependent claim 3. Therefore, the combination of Redi and Ito clearly fall short of answering the recitations of any claim and do not lead to an expectation of success in achieving the meritorious effects of the invention or establishing a level of ordinary skill in the art which would support a conclusion of obviousness of the claimed subject matter. Therefore, the ground of rejection based on Redi and Ito is also clearly in error and untenable.

Finally, Aoki et al. appears to be considerably less relevant to the invention than the documents discussed above. Aoki et al. is directed to a system for communicating with a mobile terminal as the mobile terminal passes through non-overlapping transmission regions and divides the message/signal between the transmitters of respective regions to only send the number of bits which can be reliably received. While

Aoki et al. may (*arguendo*) teach transmission of velocity information to a base station, it certainly does not mitigate the deficiencies of Redi (or Suzuki) as discussed above. Therefore, it is abundantly clear that the Examiner has not made and cannot make a *prima facie* demonstration of obviousness of any claim based on the combination of Redi and Aoki et al.

In summary, all of the prior art applied against the claims by the Examiner is very different from the invention, as claimed. None of the references applied contain teachings or suggestions of "a plurality of data processing software components designed to optimize operational performance of said mobile terminal" or distributing velocity/motion data to them as recited in claims 1 and 5 which the Examiner erroneously attributes to Suzuki and Redi. Therefore, all asserted grounds of rejection are clearly in error and the Examiner has not met the initial burden of making a *prima facie* demonstration of anticipation or obviousness of any claim in the application and has erroneously attributed teachings to the reference which are not, in fact, contained therein. Accordingly, reconsideration and withdrawal of each asserted ground of rejection is respectfully requested.

Since all rejections, objections and requirements contained in the outstanding official action have been fully answered and shown to be in error and/or inapplicable to the present claims, it is respectfully submitted that reconsideration is now in order under the provisions of 37 C.F.R. §1.111(b) and such reconsideration is respectfully requested. Upon reconsideration, it is also respectfully submitted that this application is in condition for allowance and such action is therefore respectfully requested.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension

of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Marshall M. Curtis", with a stylized flourish at the end.

Marshall M. Curtis
Reg. No. 33,138

Whitham, Curtis & Christofferson, P. C.
11491 Sunset Hills Road, Suite 340
Reston, Virginia 20190

(703) 787-9400
Customer Number: 30743